

IN SENATE OF THE UNITED STATES.

MAY 6, 1836.

Read, and ordered to be printed.

Mr. SOUTHARD made the following

REPORT,

WITH SENATE BILL NO. 246.

The Committee on Naval Affairs, to whom was referred a resolution of the Senate instructing them to inquire into the expediency of providing such defences for Key West as shall render it a safe rendezvous and depot for the Navy, report :

That they called upon the Secretary of the Navy for such official reports, documents, and evidence, as may be in possession of the Department, in relation to that place, as a fit rendezvous and depot for the navy, together with the opinion of the Department as to its value and importance to the country as a rendezvous and depot, and as to the extent and cost of such defences as may be required. The answer of the Secretary, with the documents communicated to the committee, are important to the proper understanding of the subject, and are therefore annexed to this report, and made part thereof.

The committee concur in the opinion that a competent rendezvous and depot for the navy, upon that portion of our seaboard, is indispensable to the public interest, and if no reasonable doubt existed as to the position which ought to be selected, they would not hesitate to report a bill for its immediate establishment. But it is of the first importance that the position should be chosen with great care and accurate knowledge, before the public money is expended upon it. They, therefore, present a resolution calling upon the Executive to cause a report to be made upon the subject to the next session of Congress; and, also, a bill authorizing the necessary examinations and surveys.

Resolved, That the President of the United States be requested to cause a report to be made to the Senate, at the next session of Congress, upon the expediency of establishing a naval rendezvous and depot near the southern extremity of Florida, the proper location thereof, the necessary defences of the same, and the amount of appropriations necessary to execute the plan which may be proposed.

COMMITTEE ROOM, January 30, 1836.

SIR: The Committee on Naval Affairs of the Senate have been instructed to inquire into the expediency of providing such defences for Key West as shall render it a safe rendezvous and depot for the navy.

On behalf of the committee, I am directed to ask of the Department to communicate such official reports and other documents and evidence as may be in its possession, in relation to that place, as a fit rendezvous and depot for the navy, together with the opinion of the Department as to its value and importance to the country as a rendezvous and depot, and as to the extent and cost of such defences as may be required.

I am, respectfully, &c.,

SAMUEL L. SOUTHARD.

Hon. M. DICKERSON,
Secretary of the Navy.

NAVY DEPARTMENT,

14th April, 1836.

SIR: In answer to your letter asking of this Department to communicate "such official reports and other documents and evidence as may be in its possession, in relation to Key West as a fit rendezvous and depot for the navy, together with the opinion of the Department as to its value and importance to the country as a rendezvous and depot, and as to the nature, extent, and cost of such defences as may be required," I have the honor to state that, as early as the 29th of December, 1822, the Secretary of the Navy made a report to the President, which was laid before the House of Representatives on the 20th of January, 1823, by which it appears that Thompson's island, usually called Key West, was considered highly important, as a naval station. The harbor, says the Secretary, "affords a safe and convenient rendezvous for our public vessels cruising in the West Indies and the Gulf of Mexico, and the island a very suitable depot for provisions and supplies. From the peculiar dangers of the navigation along the coast and among the Florida Keys, our merchant vessels are frequently driven by distress to seek a harbor, and for want of one in our own waters, are under the necessity of making a port in the island of Cuba, which subjects them to considerable additional expense. This island also affords a very eligible depot for wrecked property, and which is highly necessary and advantageous, where the navigation is attended with so many dangers and difficulties. We are, at this time, in a great measure dependent on the wreckers of New Providence for the protection of our property, in case of shipwreck. This not only gives employment to a great number of foreign vessels and seamen, but it subjects our merchants to heavy expenses. These are some of the obvious benefits of this position, in time of peace; but its advantages in time of war, with any European Power having West India possessions, are still more important, both as it respects the protection of our own commerce, and the annoyance of our enemy. An enemy with a superior naval force, occupying this position, could completely interrupt the whole trade between those parts of our country lying north and east of it, and those to the west, and seal up our ports within the Gulf of Mexico."

To this I will add, that circumstances of late occurrence have afforded the most satisfactory evidence of the correctness of the views taken by the Secretary of the Navy.

The Secretary further stated that, "from a report of Lieutenant Commandant Perry, who was charged with this duty, it was satisfactorily ascertained that this position affords a safe, convenient, and extensive harbor for vessels of war and merchant vessels." A copy of this report is hereunto annexed, marked A.

His instructions, however, did not require him to make so minute a survey as was necessary, in order to judge of the extent to which this place might be safely and advantageously occupied and improved as a naval depot: but captain Patterson had been instructed to make a further examination and survey. On the 10th of July, 1823, captain Patterson made a report upon this subject, a copy of which is annexed, marked B. On the 27th of October of that year, captain Porter wrote a letter to the Department, of which the paper marked C is an extract.

As my opinion is asked as to the value and importance of this place to the country, as a naval rendezvous and depot, it is my duty to state that this opinion must depend upon a comparison of the advantages of this place compared with those of the Dry Tortugas.

From a comparative view of the advantages of both places, I have no hesitation to express a preference for Key West; yet, it is proper to state the evidence in this Department in favor of the latter place.

In a printed report of Commodore Rodgers, of the 3d of July, 1829, annexed to the annual report of the Secretary of the Navy, of the 1st of December of that year, it is stated that the islands forming the Tortugas enclose an outer and an inner harbor; the first of which, besides affording a safe anchorage at all seasons of the year, is sufficiently capacious to ride in security all the navies of Europe; and that there is within this harbor another, still more secure, uniting sufficient depth of water for ships of the largest class, to a narrow entrance, not more than 120 yards wide, affording easy ingress and egress, and such as to be entered or departed from at all times, let the wind be from what quarter of the compass it may.

He further states that no fresh water or firewood, of any consequence, is to be found at this place; but that water might be collected in cisterns, and wood procured from Key West and the eastern part of Florida, without much inconvenience or expense. On the 28th of February, 1830, Lieutenants Tatnall and Gedney made to the Secretary of the Navy a report of their survey of the keys and harbors of the Dry Tortugas, a copy of which is hereunto annexed, marked D.

When it is considered that all the commerce of the Atlantic States north and east of Florida, with the West Indies, the Gulf of Mexico, and all the Western and Southwestern States, whose produce finds its way to market through the Mississippi, must pass through the straits between the reefs of Florida and Cuba, an estimate may be formed of the value of a secure naval depot upon those reefs. The value of such commerce would be the measure of value of such a depot; for, should this station in time of war be seized by our enemy, with a fleet sufficient to enable him to keep possession, this commerce would be destroyed, the interests of the Atlantic and Western States would be separated, and the intercourse

between these great divisions of our country would be seriously interrupted.

I find it difficult to express an opinion as "to the nature, extent, and cost of such defences as may be required" for this station. In the first place, it is certain that we cannot effectually protect and secure this commerce without a fleet, which may be concentrated upon any point of the coast of Florida or the Gulf of Mexico, superior to any one which an enemy could bring into the same region; and with such a fleet, fortifications to a certain extent would be necessary, for a harbor and naval depot, to guard against surprise and sudden and unexpected attacks from the enemy. A satisfactory estimate of the nature, extent, and cost of such fortifications, can only be made upon an accurate survey of scientific engineers of the station to be fortified. This Department is not in possession of the information necessary for such an estimate.

Several years ago, Lieutenant Tuttle, of the army, examined Key West, and suggested a system of defence for the same; that system was not approved of by the Engineer department.

It appears to me that there should be a further examination and survey of Key West, as well as other portions of the Florida reefs, before an estimate of the nature, extent, and cost of the required fortifications can be made; and that authority may be given for making such further examination, I would respectfully recommend.

I am, very respectfully,

Your obedient servant,

M. DICKERSON.

The Hon. SAMUEL L. SOUTHARD,

Chairman of the Naval Committee of the Senate.

A.

UNITED STATES SCHOONER SHARK,
Port Rodgers, Thompson's island, March 28, 1822.

SIR: In obedience to your order of the 7th February, I proceeded to this island, for the purpose of carrying into execution your instructions, and in consequence of boisterous weather on our outward passage, by which we lost two of our spars, I was compelled to stop a few hours at Havana for the object of replacing them. This course was however by no means out of our route, and it fortunately afforded me an opportunity of taking under convoy five American vessels, a list of which is herewith enclosed.

In regard to the island in question, I have the honor to report that, after carefully examining its whole extent, sounding the harbor, and otherwise making such observations as your instructions directed, I have come to the conclusion that it possesses many advantages, as a naval rendezvous, and in consequence have, in the name of the United States, taken formal possession of it, giving it the name of Thompson's island, and have left Midshipman Joseph Morehead, and one man, to retain posses-

sion, until further assistance can be furnished them. At present, their situation is tolerably comfortable. In selecting this name, I have not only gratified my own wishes, but have complied with the request of the proprietors of the soil present on the occasion of planting the standard, and whose names are, John Warner, Esq., United States commercial agent at Havana, and Messrs. Fleming and Whitehead, all American citizens.

The western end of the island is the only part that can be approached by any thing larger than a boat.

At this extreme, the harbor is formed by a part of Thompson's island, and several mangrove and sand-keys, many of which are covered at high water.

The harbor, to which I have given the name of Port Rodgers, is capacious, and sheltered from the prevailing northerly and easterly winds. It is however open from the south to west, which is a matter of but little importance, as the winds in this part of the world but seldom blow from the southwestern quarter. The depth of water in the harbor is from three to five and a half fathoms, but vessels may find safe anchorage without going into less than four fathoms.

The tides are rapid, and their rise and fall about six feet. Wood and water is abundant, the latter not of the best quality. Fish and game are to be taken in the greatest profusion; and in the course of a year or two the proprietors of the island will be able to supply ships with fruit and vegetables.

The watering-place is two miles from the anchorage-ground, situated on the south side of the island; the well about 100 yards from the beach. The landing is at present inconvenient, but will become less so should the island be resorted to by our cruisers, as the officers will naturally, for their own accommodation, add to the facilities of shipping the water.

I have already enlarged the wells, and enclosed one with a fence, cleared a large garden-spot, planted stakes on a mud-bank that partly obstructs the channel into the harbor, and otherwise employed the period of my stay at the island in making such improvements as will benefit those who may hereafter visit the port.

It may well be supposed that, on a coast so dangerous as the Florida Keys, the difficulties of navigation must be very numerous, requiring, on the part of the navigator, the utmost caution to avoid the innumerable shoals, rocks, and sand-banks that surround him in every direction; and although these dangers are laid down with admirable accuracy by the English surveyors, yet the tides and currents are so rapid and irregular that, until proper and skilful pilots are established, it would be imprudent for our large vessels to cross the reef.

In time of war, however, these very dangers will prove of service to our cruisers, as a knowledge of the navigation will enable them to pass and repass the reef without danger, and the want of such knowledge will prevent the enemy from reaping the same benefit.

In regard to the advantages of Thompson's island as a place of trade, I feel at a loss in forming an opinion. Its location is most certainly in its favor, being situated about midway between Florida and Cuba, the Southern States and Louisiana, which circumstance has induced many to believe that, in the course of time, the island must become a place of

considerable commerce. Heretofore, the Florida Keys have been the resort of smugglers, New Providence wreckers, and, in fact, of a set of desperadoes, who have paid but little regard to either law or honesty. The present establishment, though on a small scale, will, I conjecture, (with the assistance of the settlers,) be enabled to keep these lawless people from this island; but I would suggest the necessity of an early augmentation of force, if it be only for the purpose of enforcing the revenue laws. A gun-boat would be force sufficient to answer all the purposes required.

In enumerating the advantages possessed by this island and its contiguous waters, and in recommending it as a situation well calculated for a naval rendezvous, I have looked to a period when our country shall be engaged in a war with some great maritime state, and when the undisputed possession of the Florida Keys will be a matter of great importance, as it will ensure the undisturbed navigation of the northwest side of the Florida stream (or Gulf of Florida) to our merchant vessels, and will prove a check on the vast resources of the island of Cuba, vast indeed, if possessed by the enterprising Government of Great Britain.

I may be excused in taking this opportunity of suggesting, through you, sir, to the honorable Secretary of the Treasury, the great want of light-houses on the Florida Keys. The happy transfer of so fair a portion of territory to the United States has led to the belief that, under the enlightened and liberal policy of our Government, the navigation of the shores of Florida will be rendered more safe and convenient. Numberless are the vessels and lives that have been lost on this treacherous coast. So common are shipwrecks in this neighborhood, that many vessels are employed solely for the purpose of rescuing property from destruction, of which they receive a very large share as salvage.

That rapid current denominated the Gulf Stream sweeps the Florida reef with incredible velocity, changing its course at every variation of the wind, thereby baffling the skill of the most experienced navigator, and as they are deprived of the common beacons, so necessary in the navigation of an intricate coast, so are they at all times exposed to the most imminent danger.

The great number of vessels that daily pass through the Gulf of Florida to and from the ports of New Orleans, Pensacola, Mobile, the ports of Cuba, Jamaica, and the Spanish Main, renders the erection of light-houses not only an act of justice on the part of our Government, but humanity and a regard to the safety of the lives and fortunes of our citizens seriously demand so desirable a measure.

I should feel diffident in thus intruding my opinion upon you, sir, were I not fully impressed with the belief that the subject requires the prompt and serious consideration of Government.

At present, vessels bound into the Gulf of Mexico and Mexican sea are compelled to make the island of Cuba, for the purpose of shaping a correct course to clear the Dry Tortugas, (the southern extreme of Florida reef.) By approaching Cuba they expose themselves to the depredations of the numerous picaroons that infest the neighborhood of that island. But, if light-houses were erected on the Florida Keys, vessels in passing and repassing through the Gulf might keep on soundings the whole distance, and indeed might find safe navigation inside the reef.

As to the number and location of the light-houses, I should presume

there ought to be four, one on each extreme of the Florida Reef, the other two at intermediate spaces, say one on Cape Florida, another on Key Largo, and the third on Sand Key, (if sufficiently stable,) and the fourth on the southwest Tortugas. A light-house is also very much wanted on Cape Canaveral.

I have the honor to be,

Respectfully, your obedient servant,

M. C. PERRY.

The Hon. SMITH THOMPSON,

Secretary of the Navy.

B.

Thompson's island, formerly called Key West, is situated on the southern edge of an extensive shoal bank, off the south shore of East Florida, between that coast and the Florida reef, distant from Cape Sable forty-five miles southwest, and from the reef about seven miles north, in latitude about $24^{\circ} 34' 24''$ north, and — west longitude from Greenwich, and is the largest of a range of islands or keys which, commencing with the Dry Tortugas west, extend along the southern coast of Florida as far east as Cape Florida, measuring, in a direct line, nearly east and west, four and a half miles in length, and varying from one to two miles in breadth; its greatest elevation above the surface of the sea not exceeding in any part twelve feet.

The foundation or bed of the island is composed of shell or secondary limestone.

The soil on the western part of the island, say about one-third, is from one to four feet deep, apparently formed of alluvial deposite, as shells, exuviae, and the remains of vegetables, &c., intermixed with fragments of calcareous marl; the beach is formed of very minute fragments of shells, and particles worn from the limestone and coral rocks which surround the island.

About the centre of the island there are extensive ponds of water, slightly impregnated with common salt; for the properties of this water, the stone forming the mass of the island, and the qualities of the water in the ponds denominated fresh, I refer to the analysis hereto annexed.

That part of the island comprehended between the west point and a line drawn across, at the west end of the salt-ponds, is susceptible of cultivation, the soil being extremely rich and productive, but so intermixed with masses of limestone as to render the cultivation very laborious, and precludes the use of the plough until removed; sugar, cotton, tobacco, and all the fruits of the West Indies, may be produced in perfection.

The growth of timber is neither large or lofty; I saw no tree exceeding two feet in diameter; the undergrowth is small, but so thick as to be almost impassible; the trees and shrubs generally of the description found on the keys adjacent to the islands in the West Indies, and particularly those around the island of Cuba; among the shrubs, I noticed the cotton-plant in abundance, the paupau, the capsicum or bird pepper,

and the prickly pear; the three first were in flower in February. One cotton-plant, which I measured about a foot above the ground, was $10\frac{9}{10}$ inches in circumference, and about eighteen feet high. I noticed a tree the wood of which resembles the Spanish or Cuba mahogany, and has a fine close grain.

The growth of wood gradually diminishes in size and decreases in quantity towards the eastern end of the island, that is, from the commencement of the salt-ponds.

The salt-ponds commence about two miles from the southwest point of the island, and extend to a bay or inlet which makes into the eastern end of the island from the passage between it and the next key; and are separated from this inlet only by a narrow and low strip of land, over which the sea flows in blowing weather, and at high tides. There is also an inlet from the bay on the western side of the island to these ponds, which are about two feet deep in the middle, and from a quarter to half a mile wide. The island on the west side of these ponds is low, flat, and rocky; on the side next the sea is a sand or shell bank, from eight to ten feet high, having little soil, and that of the poorest description.

Nothing like crystallization of salt could be discovered on the borders of the ponds, nor could we perceive any indication or evidence of salt having been produced there by the effects of the sun, nor until the water from the sea and bay is prevented from flowing into the ponds at high tides, and during gales of wind, can salt be produced by evaporation: of the relative strength of the water in the ponds and that of the ocean, I refer to the analysis.

The fresh-water springs, or wells, as they were termed, were five in number, each of which I visited, and tasted the water. The first examined was a well that had been recently sunk, on the highest part of the island, nine feet deep, through a strata of rich soil four feet, and five feet into the solid limestone bed of the island—had a few inches water in it, clear, but brackish, though represented to have been very good when the well was first sunk. The water in the second, third, and fourth wells bad, and in very small quantities; the third well about seven feet deep; the fourth four feet; these three are situated nearly in the centre of that part of the island susceptible of cultivation. The fifth, or, as it is called, the south spring, is on the south side of the island, distant from the beach about two hundred yards, with an excellent path leading to it from the beach; this is evidently the only watering place on the island; this spring, if any there is, is situated nearly in the centre, and at the lowest part of a marsh of some extent, appears and tastes more like a collection of rain, than water flowing from a spring, and such we believe it to be, not having been able, on close examination, to discover a spring, though the persons on the island state the existence of a spring at that place, and that, in dry seasons, when there is no water in the pond or marsh around it, the water can be seen flowing into it almost as fast as it can be taken out; the water when taken from the pond or spring is clear and pleasant, but becomes offensive and unpalatable after being put into a cask two or three days; the quantity when we first visited the spring was very limited, not sufficient to water a frigate, but after a heavy fall of rain the whole marsh was covered with water, and the water in the other wells was so much improved as to be drinkable.

for a few days ; it was evident to me that a supply of water could not at all times be relied upon at this island, as that such as can be obtained there will not keep when confined in a cask.

The surf on the south beach, with the wind on shore, is very heavy ; the water being shoal for some distance out, and the bottom rocky, renders it both laborious and difficult to water at this spring.

The beach of this and the neighboring islands, and the keys on the Florida reef, are composed of very fine broken shells, and minute particles of the limestone rock and coral, almost as fine as sand, but not a grain of sand was discovered on any of them.

Of the climate, a judgment can best be formed from an examination of the accompanying copy of a meteorological journal, kept at that island by the agent of Mr. Limonton, showing the prevailing winds and weather, from which, and its geographical situation and formation, I should conclude the island to be healthy.

Thompson's island is bounded on the west, north, and east, by very extensive and shoal banks : on the west by the banks called the Mangrove islands, the then southernmost of which have white beaches ; on the north by the banks on the southern edge of which it is situated ; on the east by the Samba island, on the bank called Bahia Honda. Between this last island and Thompson's island the channels are narrow and shoal, navigable only for small boats.

The channel called Boca Grande, between the Marquise bank and Mangrove islands, was represented to me as having two fathoms water through it, but intricate, and having a dangerous middle-ground.

DANL. T. PATTERSON,
Capt. U. S. Navy.

Analysis of the stone which forms the basis of Key West.

Physical character.—After long exposure to the atmosphere, of a grayish white appearance, cleft or fissured ; white when taken from under the surface ; globular crystals, cohesion of the grains variable ; fracture dull, strata inclined ; hardens on exposure to the atmosphere.

Chemical character.—When submitted to the *blow-pipe* it became readily phosphorescent, but infusible, yielded an odor of lime, with a mixed color of black and white, partially dissolved in common water, with a sensation of heat ; with *nitric acid* effervescent. Its specific gravity lessened one-eighth, from the application of the *blow-pipe* ; with the oxalic acid a powder was formed which was insoluble in water, and proved to be the oxalate of lime.

In addition to this mass of secondary limestone, which constitutes the largest portion of the island, there are also extensive fragments of *calcareous marl*.

The soil on some portion of the key is from two to three or four feet in depth ; it is apparently formed of alluvial deposite, as fluvatile shells, exuviae, and the remains of vegetables.

About the centre of the island there are extensive *ponds of water*, slightly impregnated with the *muriate of soda*, or common salt. The specific gravity of this water was found one and a half grains in each fluid

ounce. One fluid pound of this water yielded to evaporation, one-sixteenth of discolored and very impure *muriate of soda*, or common salt.

There are other ponds of water on the island that are denominated fresh water; but they are believed (with a single exception) to be somewhat impregnated with saline particles.

Water from a well on the island, when submitted to the *oxalate of ammonia*, yielded a white precipitate, which was ignited, and appeared to be the *carbonate of lime*, held in solution by an excess of the acid.

C.

*Extract of a letter from Commodore Porter to the Secretary of the Navy,
dated October 27, 1823.*

“My experience convinces me that, from the middle of July to the middle of October, the lee side of Thompson’s island is an unfit residence for man; for the rest of the year, no place within the tropics can be more healthy. Those who have resided on the weather side of the island have at all times been exempt from the sickness with which those to leeward have been afflicted. As a place of deposite for our stores, and of repair for our vessels employed on the coast of Cuba, no place can be better adapted; but while the same causes for disease exist, and they must ever exist, it cannot be prudent to make it a permanent station, where many men would be exposed to the baneful influence of the sickly season. As we are now happily situated with regard to the authorities of Cuba, the inconvenience of an absence of three or four months from Thompson’s island would not be felt, and the excellent and healthy harbor of Matanzas, where we enjoy every facility and convenience from the local authorities, will obviate all the inconveniences which might otherwise be experienced. The short delay of receiving stores from on board the ships from the island, and the position they may take outside the harbor, free from influence of the poisonous vapor which arises from the ponds, would render them secure from its effects.”

D.

UNITED STATES SLOOP FLORIDA,

February 28, 1830.

SIR: The duties assigned Lieutenant Gedney and myself, in your orders of the 24th of August last, having been completed, we have the honor to lay before you a correct survey of the keys and harbors of the Dry Tortugas, accompanied by the following remarks, on the most important points to which our attention was directed by your instructions.

The harbors.—The large or outer harbor is in the centre of the whole group of keys and reefs. Its extent is a mile and three-quarters by a mile and a half, and its depth generally eight fathoms. The anchorage is clear of rock, and the holding-ground of the first quality. It has three

entrances from sea, with water sufficient for the largest ships, from the S. E., S. W., and N.; the two former are safe and easy of access, that from the north is difficult, being much intersected by shoals, and should never be attempted by large ships but in cases of emergency. It would however be of great importance in time of war. We experienced, whilst at the Tortugas, several very heavy gales from various quarters, and never found sea enough in the harbor to render it an unsafe anchorage. Our own opinion is confirmed by that of the fishermen, who have frequented it for many years.

We have no hesitation, therefore, in recommending it as a safe and commodious man-of-war harbor. The small harbor consists of two basins, the largest of which is twelve hundred yards by seven hundred and seventy, and the smallest six hundred yards by four hundred. The depth of the former is from twenty-eight to forty feet, and the latter from sixteen to twenty-four. The bottom is clear of rock and the holding-ground excellent. The entrances are from the outer harbor, by channels of thirty-five feet into the large, and twenty-three feet into the small basin. The two basins are connected by a channel of twenty-three feet, so that vessels may haul from one to the other, without passing into the outer harbor. This harbor is so completely walled in by the keys and flats, that the water in the heaviest gales is perfectly smooth, vessels having nothing to contend with but the mere force of the wind. In the last hurricane which was experienced at the Tortugas, two fishing-smacks were at anchor in the small basin, one of which rode it out, the other drove on shore, and when the gale abated was got off without injury. This information was received from a fisherman who was on board the smack which rode out the gale, and who states that, although it was of almost unprecedented violence, there was not sea enough to cause the vessel to pitch. This harbor is in fact a natural dock, as easy of access and as safe when in as can be desired. It is small, but, if vessels should moor, as is usual in docks, so as to occupy as little space as possible, it would accommodate the greater part of our navy.

The health of the keys.—We arrived at the Tortugas on the 3d of October, previous to which our men had been considerably exposed, and several were invalids. We were immediately occupied at work on the flats, standing in the water during the heat of the sun, and in cutting extensive paths through the keys. An officer and several men were in consequence attacked with the intermittent fever, but so slightly that they were readily cured without the aid of a physician. On recovering they had not in a single instance the sallow appearance generally following southern bilious fevers, but almost immediately recovered their usual appearance and strength. A second exposure invariably brought on a relapse, but even then the disease was so mild as to be checked without difficulty. We have not, during the whole cruise, lost a man, nor is there a person sick on board the vessel. The family of the keeper of the light-house, consisting of five, (all northern constitutions,) have enjoyed uninterrupted health, and we were assured by the fishermen that they had never heard or known that the keys were otherwise than healthy, and, to use their own words, "that they never consider it necessary when there to be particularly careful of their health."

There is indeed nothing to cause disease; no ponds, no deposite of sea-

weed, as at Key West. They are as healthy as the deck of a ship in the same latitude. The health of this year may be considered as a fair criterion by which to judge it generally; for the neighboring parts of the Florida reef have been more unhealthy than usual. At Key West, the mortality has been so great that sixty-five of the inhabitants died out of one hundred and fifty, and, of the whole population, very few escaped sickness entirely.

Susceptibility of defence.—On this point we can merely venture an opinion, as our profession does not lead us to any accurate knowledge of the subject; as a mere matter of opinion, however, we would say that the outer harbor could not be so defended as to prevent the entrance of an enemy, although the forts for the protection of the basin would prevent its occupation. There can be no difficulty, we think, in fortifying the basins so as to render them perfectly secure. Should the keys not furnish sufficient space, the flats would afford as much as could be required. They are dry in some places, and have generally but from two to three feet water on them. They are well located for this purpose, do not shift, and appear to be suitable foundations for the heaviest works. We refer you, sir, to the journal of the survey accompanying the report, for our further views in relation to this subject. The opinion that some have entertained, that the keys are overflowed in heavy gales, is certainly erroneous. This did not occur in the hurricane above alluded to. Their location is very different from that of Sullivan's island, and other islands on our coast, which have been subject to this inconvenience. They have no main land near them to back the water, which, meeting with no obstacles, flows freely through them.

The height of the keys which would be fortified, is from three feet nine inches to four feet one inch above the level of the highest tides which we experienced in four months.

The facility of supplying the place in the event of war.—By a reference to the chart, it will be seen that the keys and reefs occupy a circumference of thirty miles; that the three channel-ways from the sea, for large ships, are all in opposite directions; and that there are numerous passages through the reefs, by which vessels of light draught of water might enter the harbor. To these advantages may be added the excellent navigation for small vessels through the whole Florida reef, where they could be protected by convoys to within seventy miles of the Tortugas, and the vicinity of the Gulf stream to the latter, which would subject blockading vessels to be frequently drifted from their stations. It would appear, therefore, that if the station could be effectually blockaded at all, it would require a much larger force than any power could devote to this single object.

The importance of the position.—We can furnish but little information on this subject which the Department does not already possess. Its importance as the doubling-point of our commerce to and from the Gulf of Mexico, is shown by the fact that, in a little over three months, one hundred and thirty-one vessels, principally square-rigged, passed in sight during the day, and it is presumable that an equal number may have passed at night. In this number, the smacks and other vessels frequenting the Tortugas are not included. We would, however, suggest one point of view in which its occupation may prove of great importance.

The vicinity of St. Domingo to Cuba, and the nature of the population of the two islands, render it by no means improbable that, at a future day, their political condition may be the same. In this event, the proximity of Cuba to Florida, which must always be the weakest portion of the Southern country, may be attended with imminent danger, particularly should we be engaged in a war with a naval power disposed to encourage a descent on the coast. A fortress at the Tortugas, looking directly into the port of Havana, in conjunction with a naval force, would be a strong, if not an effectual check on such a disposition, and give us at all times the control of the island. The principal disadvantage under which the position would labor, is the want of fuel. That of water could be remedied by tanks, and in this respect it would be in no worse condition than Gibraltar and some other important fortresses. The flats would afford for this purpose as much surface as could be required. Fuel might be supplied from the continent, or neighboring keys on the reef. The want of fuel, however, does not appear to be a sufficient ground for not occupying the position, for, if it can be supplied at all, it can as easily be supplied with one article as another. Owing to the mildness of the climate, the expenditure of fuel would be less than on the continent. It would be required only for cooking.

On all minor points, sir, connected with the subject, we beg leave to refer you to the journal.

I am, sir, with great respect and consideration,

Your obedient servant,

JOSIAH TATNALL.

The Hon. JOHN BRANCH,
Secretary of the Navy.

CHESTER, *December 29, 1829.*

SIR: In consequence of your application to me for my opinion of Thompson's island, or Key West, I have to state, in reply, that since the year 1823 I have, from time to time, been making myself acquainted with the Florida coast and keys, part of the time in command of the United States squadron, and subsequently in command of the Mexican force in that quarter; and perhaps there is no man living better qualified than myself to give an opinion on the subject, as my information is derived from actual observation and practical experience.

The harbor of Key West is, in my opinion, the best harbor within the limits of the United States, or its territories, to the south of the Chesapeake:

1st. For its easy access and egress, at all times and with all winds.

2d. For the excellent anchorage and security it affords, both in the inner and outer harbor, for ships of the largest class. Leading to the harbor of Key West are several excellent channels, some affording water for the largest class of ships, the others suited to the vessel drawing ten and twelve feet water.

The advantages which Key West affords, in a commercial point of view, are—

1st. Its vicinity to the island of Cuba and port of Havana, having a ready market for all articles placed there in deposite, or left by the wreckers, of whom this is the rendezvous of those on the coast.

2d. It being a convenient touching place for all vessels bound to and from the Gulf of Mexico, Bay of Honduras, and the coasts of Louisiana and Florida.

As a naval station, Key West has decidedly the advantage over all others I have ever known :

1st. In its susceptibility of fortification.

2d. The ease and number of its approaches with all winds.

3d. The difficulty of blockade, as I have proved while in command of the Mexican squadron ; it requiring a blockading force equal to three or four times the force to be blockaded to keep up an efficient blockade.

4th. The ease with which supplies may be thrown in, in despite of the presence of the enemy.

5th. Abundance of wood and water.

In speaking of Key West as a naval station, I have reference only as to its being employed as a depot for stores, and a rendezvous for our ships of war : but even as a place for the establishment of a navy yard, it has most decidedly the advantage over Pensacola, and every place south of the Chesapeake :

1st. On account of the depth of water.

2d. Its more central situation, and facility of communication with, and deriving all the advantages by water of supplies from, the Northern and Southern sections of our Union, viz. : provisions from Louisiana ; spars and live-oak from the Floridas and Georgia ; cordage, canvass, iron, gunpowder, shot, &c., from the North. The distance from either being short, the time, risk, and expense of furnishing them, must necessarily be reduced in proportion.

3d. Its salubrity of climate, being equal in every respect to that of New Providence, or any of the Bahamas.

The malady with which the naval forces under my command for the suppression of piracy were afflicted, had its origin in the excessive severity of the duty performed, and the total absence of every description of comfort. The disease was contracted among the haunts of the pirates on the coast of Cuba, and not, as is generally supposed, at Key West.

It is found that the salubrity of Key West improves yearly, by the filling up of the ponds, clearing the woods ; and, by adding to the comfort of those who reside there, it will not be surprising if it should hereafter become a place of resort to the inhabitants of our Southern section during the prevalence of the sickly seasons.

These facts and opinions are stated after an experience of nearly seven years.

The advantages of its location, as a military and naval station, have no equal except Gibraltar :

1st. It commands the outlet of all the trade from Jamaica, the Caribbean sea, the Bay of Honduras, and the Gulf of Mexico.

2d. It protects the outlet and inlet of all the trade of the Gulf of Mexico, the whole western country of Louisiana, and the Floridas.

3d. It holds in subjection the trade of Cuba.

4th. It is a check to the naval forces of whatever nation may possess Cuba. It is to Cuba what Gibraltar is to Ceuta.

It is to the Gulf of Mexico, &c., what Gibraltar is to the Mediterranean.

Among its advantages, as a military position, may be enumerated an abundance of freestone for building, which, being a concrete of coral and shells, is easily converted into lime. The island is low, not being more than fifteen or twenty feet above the level of the ocean. The channel into the inner harbor runs bold to its western part, which makes wharves easy of construction. The soil is rich, being formed of a vegetable decomposition, mixed with sand and shells. It produces all the plants and fruits of the tropics, with the exception of coffee, and yields abundantly.

On the eastern part of the island is a very extensive natural salt-pond, which, from every appearance, I should judge, from a moderate capital and enterprise, might be made to vie with any of those in the British Bahamas.

Stock of every description live and thrive well on the island, without requiring any care whatever, as has been abundantly proved by those which I imported, on account of the United States, from the Cuba and the Bahamas.

The thick growth of wood with which the island is covered, and which affords timber suitable for the construction of small vessels, is filled with small deer and other game, and the seas abound in the finest fish in the world.

In making this statement respecting Key West, I am actuated by no other feeling than the desire that my country should not, by the prejudices, partialities, interested views, and errors of others, be induced to lose sight of the great advantages it presents, whether looked at in a military or a commercial point of view. An effort is now making to form a naval establishment on the insulated cluster of sand keys called the Dry Tortugas, which may easily be surrounded by a small enemy's force, exposed to his cannon without entering the harbor, which afford neither wood nor water, nor scarcely any kind of vegetation, and have the insuperable objection of not affording a sufficient area of land on which to form a naval establishment of even a very limited extent.

Nature seems to have formed it for a place of deposit for the eggs of the turtle and the sea-birds, and the art of man can make very little more of it.

Key West has been tried, and is proved to possess all the advantages which are desirable in a naval depot and rendezvous. It is proved that the only objection, insalubrity of climate, has no foundation in fact. Where, then, is the necessity of making further disbursements or useless experiments, when one has already been made in Key West, and has proved satisfactory?

With great respect,

Your obedient servant,

DAVID PORTER.

